

# Brandon Lazard

[bjlazard@gmail.com](mailto:bjlazard@gmail.com) | [Linkedin](#) | [Portfolio](#) | [Website](#) | Los Angeles, CA | 469.358.5552

## EDUCATION

**The University of California, Los Angeles**, Los Angeles, CA Expected June 2025  
Master of Space Physics and Geophysics, GPA: 3.8

- Was awarded the NASA FINESST Fellowship that provides funding for of 3 years for up to \$50,000 a year

**The University of Texas at Austin**, Austin, TX 2023  
Bachelor of Science in Physics

Bachelor of Science in Astronomy

- Co-president of the Astronomy Students Association for 2 years where I conducted public outreach, held weekly meetings, and fostered a community post-COVID19
- Co-founded an Astronomy major peer mentorship program to aid students in schedule planning, finding research opportunities, and outlining career goals

## TECHNICAL SKILLS

Programming Languages: Python3, Julia, MatLab, Arduino, Linux/Bash, Git, HPC Systems

Applications: SolidWorks, AutoCad, OpenFoam, LabView

Fabrication: Drillpress, Mills, Lathes, CNC, Drafting, Soldering

## RESEARCH & EXPERIENCE

**UCLA SPINLab**, Los Angeles, CA 2023-Present  
*Graduate Research Assistant*

- Operate multiple rotating, fluid convection devices to perform experiments and gather novel data
- Maintain liquid gallium storage and cleaning to be used for further experiments
- Prepare and present quarterly presentations on current literature for discussion amongst experts in the field

**Space Physics Laboratory**, Austin, TX 2021-2023  
*Undergraduate Research Assistant*

- Extracted data from NASA's CDAWeb and wrote Python3 scripts to analyze correlations in density and magnetic field data of the solar wind
- Organized and conducted public outreach to 9 primary schools and hosted star gazing nights at 3 national parks
- Presented to a general audience of 100+ people showcasing the importance of solar physics

## SELECTED PROJECTS

**Solar Convection Zone Modeling**, University of California, Los Angeles, CA 2024

- Performed numerical simulations using the Rayleigh code on a high performance computing cluster to collect novel simulation data comparing viscosities in solar convection zone models
- Wrote open-source post-processing scripts in Python3 to analyze simulation outputs
- Presented simulation results to a conference poster session with 200+ attendees
- Collaborated with a team of 8 to write 950+ lines of code of the open-source code Rayleigh only 3 months after first utilizing the code

**Laboratory Experiments of a Convection Device**, University of California, Los Angeles, CA 2023-2024

- Planned size and specifications of a convection tank to reach the desired parameter regime for experiments
- Constructed a 1 meter tall fluid tank as a tool for future students to perform convection experiments
- Constructed a voltage divider for a data-acquisition system used to read temperature measurements
- Programmed an arduino to read real-time temperature measurements in Python3
- Wrote Python3 scripts to analyze thermometry data and interpret the efficiency of heat transfer